



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/588,122

08/01/2006

Takahiro Kushida

12143-0005

3686

22902

7590

02/23/2009

CLARK & BRODY

1090 VERMONT AVENUE, NW

SUITE 250

WASHINGTON, DC 20005

EXAMINER

IP, SIKYIN

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

02/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,122	<b>Applicant(s)</b> KUSHIDA ET AL.	
	<b>Examiner</b> Sikyin Ip	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/22/08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 4105474 to Nakasugi et al.

Nakasugi discloses the features including the claimed steel pipe composition (col. 5, lines 45-55 and col. 7, lines 32-59) and TiN size (abstract and col. 2, lines 62-

Art Unit: 1793

68). Therefore, when prior art compounds essentially "bracketing" the claimed compounds in structural similarity are all known, one of ordinary skill in the art would clearly be motivated to make those claimed compounds in searching for new products in the expectation that compounds similar in structure will have similar properties. In re Gyurik, 596 F.2d 1012, 1018, 201 USPQ 552, 557 (CCPA 1979); See In re May, 574 F.2d 1082, 1094, 197 USPQ 601, 611 (CCPA 1978) and In re Hoch, 57 CCPA 1292, 1296, 428 F.2d 1341, 1344, 166 USPQ 406, 409 (1970). As stated in In re Peterson, 315 F.3d 1325, 1329-30, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003), that "A prima facie case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art". Therefore, it would have been obvious to one of ordinary skill in the art to select any portion of range, including the claimed range, from the broader range disclosed in a prior art reference because the prior art reference finds that the prior art composition in the entire disclosed range has a suitable utility. Also see MPEP § 2131.03 and § 2123.

### ***Response to Arguments***

Applicant's arguments filed October 8, 2008 have been fully considered but they are not persuasive.

~~maximum size.....But yet another way,~~ Nakasugi only defines a certain amount of the content of all of the TiN inclusions to be not larger than 0.02 $\mu$ m in size; Nakasugi does not

Applicants argue that " specify a limit a size of each TiN inclusion contained in the slab. "

But, applicants' argument is found inconsistent with teaching of Nakasugi. Applicants' attention is directed to col. 3, lines 47-54 attached below that TiN is not larger than 0.02  $\mu$ m.

Art Unit: 1793

Regarding the definition of TiN not larger than  $0.02\mu$ , it also includes Ti and N which are present in solid solution in the steel and TiN which is present in the form of a precipitate and has a size not larger than  $0.02\mu$ . Ti and N are present in solid solution in the steel precipitate as TiN not larger than  $0.02\mu$  during the subsequent heating and effectively prevent the coarsening of the heated  $\gamma$  grains. In this case, according to the

This interpretation is supported when considering Figure 1 of Nakasugi and its

Applicants argue that " explanation. In col. 3, lines 7-11, the relationship between the heated  $\gamma$  grain size and "

But, applicants interpretation is found inconsistent with Figure 1 which has shown heated  $\gamma$  grain size is level off at TiN size less than  $0.012\mu$ . Furthermore, applicants fail to provide factual evidence to support their position.

Applicants contend that there is no factual basis to conclude that Nakasugi meets this claim limitation. Certainly, there is no express limitation on the size of the TiN content that does not fall within the desired range of Nakasugi. There is also no basis to infer that the claim limitation all inclusions of TiN are not more than  $30\mu$ . The Examiner

reiterates the responses above.

Applicants argue that "allegation? Nakasugi says nothing about an upper limit regarding the content of TiN. Any "

But, it is immaterial because none of instant rejected claims recites concentration of TiN.

The Examiner's attention is also directed to col. 3, lines 47-65. Here, Nakasugi teaches that the size limitation of not more than  $0.02\mu$  applies not only to TiN in solid solution, but also precipitates of TiN. This also implies that there are precipitates that do not fall within the content and size requirements of Nakasugi and this is further

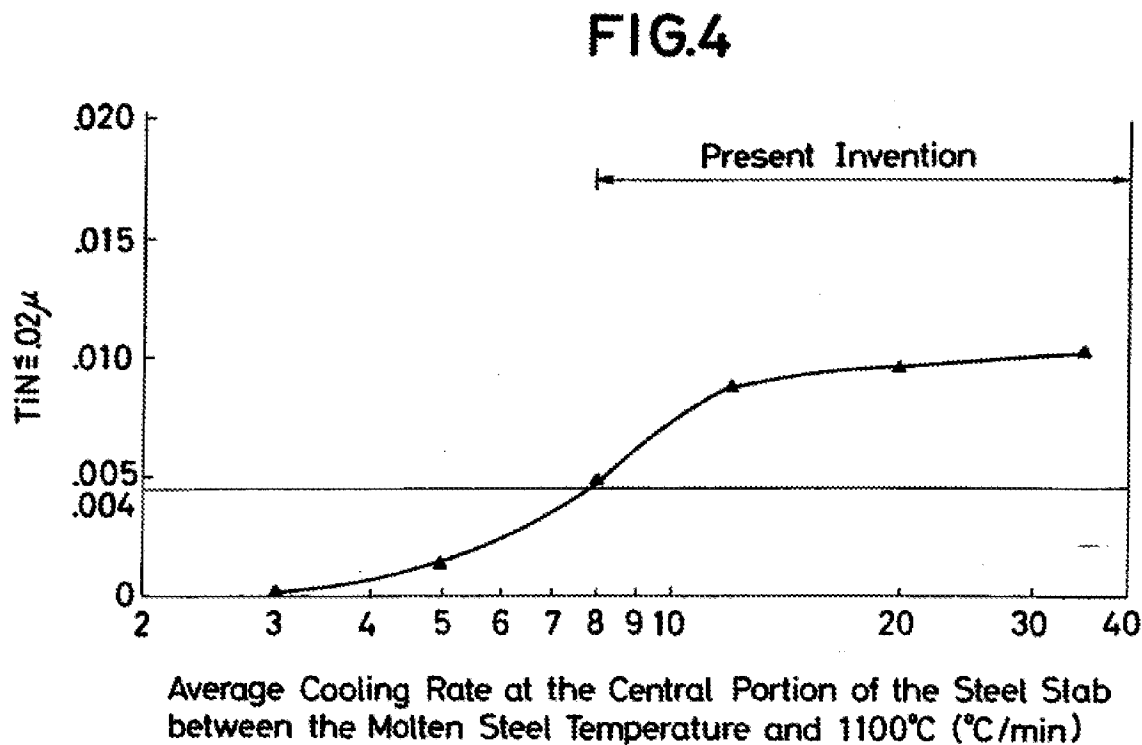
Applicants argue that " substantiation that there is no upper limit on the sizes of the TiN conclusion " But,

Regarding the definition of TiN not larger than  $0.02\mu$ , it also includes Ti and N which are present in solid solution in the steel and TiN which is present in the form of a precipitate and has a size not larger than  $0.02\mu$ . Ti and N are present in solid solution in the steel precipitate as TiN not larger than  $0.02\mu$  during the subsequent heating and effectively prevent the coarsening of the heated  $\gamma$  grains. In this case, according to the

applicants' argument is found inconsistent with

Figure 4 is another example indicating that certain content of the TiN contained in

Applicants argue that “the slab of Nakasugi does not meet the limitation of not more than 0.02 $\mu$ .” But, it is found inconsistent with Figure 4 below that invention of Nakasugi has TiN less than 0.02  $\mu$ m.



Applicants' argument in page 4, first paragraph of instant remarks is noted. But, Nakasugi clearly teaches TiN not larger than 0.02  $\mu$ m (see col. 3, lines 45-54 and Figures 1 and 4 above). Moreover, the instant Figure 1 fails to show claimed TiN size is critical or possesses unexpected result.

Applicants' argument in paragraph bridging pages 4-5 of instant remarks is noted. But, applicants failed to provide factual evidence by way of 132 declaration to substantiate their position.

Applicants argue that the examples of Nakasugi failed to disclose claimed Ca.  
But examples of cited reference are for illustration not for limitation.

## Conclusion

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The above rejection relies on the reference(s) for all the teachings expressed in the text(s) of the references and/or one of ordinary skill in the metallurgical art would have reasonably understood or implied from the text(s) of the reference(s). To emphasize certain aspect(s) of the prior art, only specific portion(s) of the text(s) have been pointed out. Each reference as a whole should be reviewed in responding to the rejection, since other sections of the same reference and/or various combination of the cited references may be relied on in future rejection(s) in view of amendment(s).

All recited limitations in the instant claims have been met by the rejections as set forth above.

Applicant is reminded that when amendment and/or revision is required, applicant should therefore specifically point out the support for any amendments made to the disclosure. See 37 C.F.R. § 1.121; 37 C.F.R. Part §41.37 (c)(1)(v); MPEP §714.02; and MPEP §2411.01(B).

### Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Ip whose telephone number is (571) 272-1241. The examiner can normally be reached on Monday to Thursday from 5:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Roy V. King, can be reached on (571)-272-1244.

Art Unit: 1793

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sikyin Ip/  
Primary Examiner, Art Unit 1793

February 16, 2009